

***ATTACHMENT 3***  
***ENVIRONMENTAL ASSESSMENT***

## **ENVIRONMENTAL ASSESSMENT FINAL RULE – 10 CFR 50.83**

### **Release of Part of a Facility or Site for Unrestricted Use Before the NRC Approves the License Termination Plan**

#### **INTRODUCTION**

In accordance with 10 CFR Part 51 (Reference 1), this document presents the findings of NRC's environmental assessment of a rule to standardize the process for the release of a part of a nuclear power reactor facility or site for unrestricted use before NRC approval of the License termination Plan (LTP). This type of release is termed a "partial site release." The rule adds a new section to 10 CFR Part 50, separate from the decommissioning and license termination rules, that identifies the criteria and the regulatory framework to be used by licensees requesting approval of partial site releases. The rulemaking includes associated amendments to 10 CFR Part 2 and 10 CFR Part 20.

NRC's regulations for implementing Section 102(2) of the National Environmental Policy Act of 1969 (NEPA), as amended, are contained in Subpart A of 10 CFR Part 51. These regulations require that an environmental impact statement or an environmental assessment be prepared for all licensing and regulatory actions that are not classified as "categorical exclusions" in accordance with 10 CFR 51.22(c) and are not identified in 10 CFR 51.22(d) as other actions not requiring environmental review.

#### **Identification of the Action**

Prior to the implementation of this rulemaking, the holder of an operating license (i.e., the licensee) for a light-water power reactor is not required to seek or obtain NRC approval for a partial site release. The license termination criteria of 10 CFR 50.82 and 10 CFR Part 20, Subpart E, did not require a reactor licensee to demonstrate compliance with the radiological criteria for unrestricted use for a partial site release. Nor did the regulations require a licensee to submit information necessary for the staff to evaluate the adequacy of a licensee's partial site release. To address the regulatory gap in 10 CFR Parts 20 and 50, the staff believed that a rulemaking was needed to make it clear that the radiological criteria of 10 CFR Part 20, Subpart E, for unrestricted release (0.25 mSv/yr [25 mrem/yr] to the average member of the critical group and as low as reasonably achievable) apply to a partial site release. The rulemaking continues to ensure that any remaining residual radioactivity from licensed activities in parts of a site released for unrestricted use meets the radiological criteria for license termination.

The rule is narrowly focused on operating and decommissioning power reactors. Furthermore, the rule does not allow partial site release under restricted conditions (as restricted release is permitted for license termination in 10 CFR 20.1403).

In order for the staff to evaluate the adequacy of the licensee's plans for partial site release, the rule requires licensees to submit information necessary to demonstrate the following:

- The release complies with the radiological criteria for unrestricted use in

10 CFR 20.1402 (0.25 mSv/yr [25 mrem/yr] to the average member of the critical group and as low as reasonably achievable).

- The licensee will continue to comply with all other applicable regulatory requirements that may be affected by the release of property and changes to the licensed site boundary. This would include, for example, requirements in 10 CFR Parts 20, 50, 72, and 100.
- Records of property line changes to the licensed site and the radiological conditions of partial site releases are being maintained to ensure that the dose from residual material associated with these releases can be accounted for at the time of any subsequent partial releases and at the time of license termination.

The approval process for releasing property depends on the potential for residual radioactivity from plant operations present in the area to be released. For areas classified as impacted, and, therefore, having some reasonable potential for residual radioactivity, the licensee would submit a license amendment application with the licensee's demonstration of compliance with the radiological criteria for unrestricted use specified in 10 CFR Part 20, Subpart E, Section 1402 (0.25 mSv/yr [25 mrem/yr] to the average member of the critical group and as low as reasonably achievable). Regulatory guidance for performing this demonstration is contained in NUREG-1727, "NMSS Decommissioning Standard Review Plan" (Reference 2). For proposed release areas classified as *non-impacted* and, therefore, having no reasonable potential for residual radioactivity, and where a license amendment is not otherwise required or desired by the licensee, the NRC can approve the action by letter upon determining that the licensee has met the criteria of the rule.

A Part 50 or Part 72 license may contain a license condition or a technical specification describing the licensed site area in detail. Because a partial site release in this case would change the site as licensed, a license amendment application for the proposed partial site release would be required regardless of the amount of residual radioactivity present in the area to be released.

### **Need for the Action**

The objective of this rulemaking is to standardize the process for allowing a licensee to release part of its reactor facility or site for unrestricted use before receiving approval of its license termination plan (LTP). The rule ensures that residual radioactivity meets the radiological criteria for license termination even if parts of the site are released before a licensee submits its LTP.

The staff concluded that existing regulations did not address the issue of partial site releases before NRC approval of a licensee's LTP. The gap in the existing regulations could conceivably allow a licensee to adopt a piecemeal approach to reduce the size of its site and avoid applying the license termination rule release criteria when the licensee requests termination of its 10 CFR Part 50 license. Because several current reactor licensees have expressed interest in selling parts of their sites before they receive approval of their LTPs, the staff believed the issues should be resolved generically.

### **Environmental Impacts of the Action**

The partial site release rule applies only to Part 50 licensees of operating and decommissioning nuclear power reactors. It addresses two situations, depending on the potential for residual radioactivity present in the area proposed for release. First, for areas classified as impacted, and, therefore, having some reasonable potential for residual radioactivity, the licensee would submit a license amendment request with the licensee's demonstration of compliance with the radiological criteria for unrestricted use specified in 10 CFR Part 20, Subpart E, Section 1402. Second, for proposed release areas classified as *non-impacted* and, therefore, having no reasonable potential for residual radioactivity, and where a license amendment is not otherwise required or desired by the licensee, the NRC can approve the action by letter upon determining that the licensee has met the criteria of the rule.

The NRC prepared a "Generic Environmental Impact Statement (GEIS) in Support of Rulemaking on Radiological Criteria for License Termination of NRC-Licensed Nuclear Facilities" (NUREG-1496, Reference 3), for 10 CFR Part 20, Subpart E. In that rulemaking, the Commission stated that the GEIS encompassed impacts expected to occur in most releases of a site for unrestricted use. The Commission concluded that the GEIS satisfied the obligations of NEPA for sites that meet the 0.25 mSv/yr [25 mrem/yr] criterion for unrestricted use. However, the Commission said it would still initiate an environmental assessment of any site for which a categorical exclusion did not apply to determine if the GEIS encompassed the range of environmental impacts expected at the site.

Under the partial site release rule, licensees requesting a partial site release are expected to address the environmental consequences of the proposed release of parts of their property. No environmental consequences would be expected for the release of areas in which there is no reasonable potential for residual radioactivity. The rule specifically requires that licensees address the impact of the planned action on effluent releases, the site environmental monitoring program, and the offsite dose calculation manual. NRC verification of these steps will be conducted via detailed technical review of licensee-submitted information and onsite NRC inspections, including confirmatory radiation surveys as warranted. In those instances involving license amendments, licensees would also be required to provide a supplement to the existing environmental report to address the planned release. This requirement is similar to that of 10 CFR 50.82 (a)9(ii)G, the license termination rule. For letter release requests, licensees are required to provide the reasons for concluding that the environmental impacts associated with the proposed release will not be greater than those estimated in previously issued environmental impact statements.

The changes incorporated in the rulemaking do not increase the probability or consequences of accidents, do not involve a significant increase in the amounts nor a significant change in the types of any effluents that may be released off site, and do not significantly increase occupational or public radiation exposures. Therefore, no significant radiological environmental impacts are associated with the changes. The changes do not involve non-radiological plant effluents and have no other environmental impact. Therefore, no significant non-radiological environmental impacts are associated with the rulemaking.

### **Alternatives to the Action**

As required by Section 102(2)(E) of the NEPA (42 U.S.C.A. 4332(2)(E)), the NRC has considered possible alternatives to the proposed action. The staff considered the following alternatives to the rulemaking:

Alternative 1: No action. If the NRC followed this alternative, rulemaking would not be pursued and the current situation would be maintained. The NRC would address proposals to release a part of a power reactor facility or site on a case-by-case basis. Under this alternative, NRC would evaluate each partial site release using the guidance in NRC Regulatory Issue Summary (RIS) 2000-19, "Partial Release of Reactor Site for Unrestricted Use Before NRC Approval of the License Termination Plan" (Reference 4). For the most part, the RIS guidance parallels the rule and requests information from licensees that propose a partial site release in order to facilitate NRC evaluation of the proposed action. However, the RIS does not require licensee action as would a regulation. Following this alternative would avoid expenditure of NRC resources on rulemaking. However, the lack of regulations providing a standardized process for requesting approval of a partial site release could result in the application of inconsistent or unnecessary standards to the related technical reviews and unnecessary expenditure of industry and NRC resources in determining appropriate standards and processes for each case.

An advantage of this alternative is that, following the guidance in RIS 2000-19, an environmental review would be included in those partial site release cases involving a license amendment request and in selected cases involving a licensee's letter request. Also, public notification provisions contained in RIS 2000-19 should help ensure that all environmental concerns related to a proposed release are considered.

A drawback of this alternative is that an adverse impact on public health and safety could result from partial site releases at reactor sites because of a lack of regulation specifically applying the radiological criteria for release of property for unrestricted use. Further, taking no action could result in the loss of information related to the radiological condition of released areas. This step would have a direct effect on the ultimate decommissioning of the site.

Alternative 1 is not a preferred option because it would not address the concern that continued regulation of partial site release on a case-by-case basis would be inconsistent and inefficient. The lack of a standardized process for partial site release could jeopardize the effectiveness of the ultimate decommissioning of a facility if the radiological standards of 10 CFR Part 20 were not properly applied. The current situation also could allow licensees to pursue partial site releases that circumvent the intent of the license termination rule by using a piecemeal approach to clearing property for unrestricted use. These health and safety considerations were an important factor in the NRC's determination that this option was not acceptable.

Alternative 2: Broad scope rulemaking: Revise 10 CFR Parts 2, 20, 30, 40, 50, 70, and 72 to address partial site releases at a variety of facility types. Following this alternative could improve overall efficiency by addressing partial releases of all types of facilities in a single, large effort. However, the short-term resource expenditures to expand the scope of rulemaking would be significant because of the larger number and the greater diversity of stakeholders involved. Also,

the different schedules required for the decommissioning of materials and reactor facilities could result in some differences in the requirements for partial site releases in any case.

This alternative could provide clear and consistent regulation of partial releases for all classes of licensees and could allow guidance developed for decommissioning and license termination to be used for partial site releases. This approach could help ensure that the radiological consequences associated with partial site releases at all licensed facilities do not present an undue risk to public health and safety. However, current regulations for materials licensees address partial site release to a limited extent so that some NRC review is involved. Thus, the regulatory gap, and its associated environmental impact being addressed by the rule for reactor licensees, is not as significant for materials licensees.

Alternative 2 is not a preferred option because it is not expected to provide the timely rulemaking necessary to address potential near-term partial release requests. Including other facility types in the rule would add many additional technical issues that are not concerns for power reactor sites. Partial site releases for materials licensees are addressed to a limited extent in other regulations (i.e., Parts 30, 40, 70, and 72). The rule will change the requirements for reactor sites but will not affect regulation of materials licensees. The impacts associated with license termination activities at a wide variety of sites that could be decommissioned were considered in the GEIS, NUREG-1496, and the rule is not expected to alter the conclusions in that study. In the future, the staff may consider changes to the regulations for materials licensees to make the requirements consistent with the rule for reactor licensees.

In summary, the rulemaking does prevent the potentially adverse environmental impact of the first option - that a partial site release could hinder the eventual safe decommissioning of a reactor site. The rulemaking requires NRC review of proposed partial site releases, applying the license termination radiological release criteria. The no-action alternative would not ensure NRC review nor the use of specific release criteria, thus presenting the potential for adverse environmental impacts.

The environmental impacts under the proposed action and the second alternative at reactor sites are identical because both options use the same radiological criteria for partial site release. Pursuing a broad-based rulemaking for all licensees would add technical complexity to the rulemaking and significantly delay implementation of the proposed rule for reactor sites. This step would allow the continued potential for adverse environmental outcomes at reactor sites pursuing partial site releases until the rulemaking is implemented. Partial site releases of non-reactor sites were considered in the existing license termination regulations, but a regulatory gap exists for reactor facilities. The opportunity exists for NRC review of proposed partial releases of non-reactor sites. Thus, the regulatory gap that exists for reactor sites is not an issue for non-reactor sites, and there is much less potential of an adverse environmental result compared to the existing situation for reactor sites. In short, pursuing the rule addresses a potential for significant environmental impact at reactor sites. Similar adverse environmental consequences are not expected for non-reactor licensees under existing regulations.

### **Agencies and Persons Consulted**

The NRC developed the rule and this environmental assessment. The NRC sent this environmental assessment to all State liaison officers for comment.

### **Finding of No Significant Impact**

On the basis of the environmental assessment, the Commission concludes that the proposed action will not have a significant effect on the human environment. Accordingly, the Commission has determined not to prepare an environmental impact statement for the action.

### **References**

1. Code of Federal Regulations, Title 10, Chapter I, Parts 2, 20, 30, 40, 50, 51, 70, and 72.
2. NUREG-1727, "NMSS Decommissioning Standard Review Plan," September 2000.
3. "Generic Environmental Impact Statement in Support of Rulemaking on Radiological Criteria for License Termination of NRC-Licensed Nuclear Facilities," NUREG-1496, Volume 1, July 1997.
4. NRC Regulatory Issue Summary 2000-19, "Partial Release of Reactor Site for Unrestricted Use Before NRC Approval of the License Termination Plan," October 24, 2000.